IN THE SPECIFICATION

Please replace paragraph [0056] at page 30, with the following rewritten paragraph [0056]:

[0056] Here, the first separation matrix W(f) calculated by the separation matrix computing section 130 includes ambiguity of the order. Therefore, the permutation problem solving section 140 resolves the ambiguity of the order of the first separation matrix W(f) to obtain a ~~second~~ matrix separation signal W'(f).

[Processing by the permutation problem solving section 140]

First, the inverse matrix computing section 141 reads the first separation matrix W(f) from memory area 103 of the memory 100, calculates the Moore-Penrose generalized inverse matrix $W^+(f) = [A_1(f), ..., A_N(f)]$ (which is identical to the inverse matrix $W^{-1}(f)$ if M = N) of the matrix, and stores the basis vectors $A_p(f) = [A_{1p}(f), ..., A_{Mp}(f)]^T$ that constitute the Moore-Penrose generalized inverse matrix in memory area 104 (step S3). ~~If M = N, $W^+(f)$ is identical to the inverse matrix $W^{-1}(f)$.~~

Please replace paragraph [0061] at page 33, with the following rewritten paragraph [0061]:

[0061] [Formula 15]

$$\Pi_f = \arg\min_\Pi \sum_{k=1}^N \left\| \eta_k - A_{\Pi(k)}''(f) \right\|^2 \quad ... (13)$$

where "argmin$_\Pi$·"represents Π that minimizes "·". ~~and "$A_{\Pi(k)}$"(f)" represents the normalized basis vectors that are to be rearranged into normalized basis vectors A_k"(f) by Π. That is, Π_f causes the Π(k)-th normalized vector $A_{\Pi(k)}$"(f) to be the normalized basis vector A_k"(f) in the k-th column.~~ The permutation Π_f can be determined according to Equation (13) by calculating

Please replace paragraph [0076] at page 38, with the following rewritten paragraph [0076]:

[0076] [Reason whey normalized basis vectors $A_p''(f)$ form clusters]

Each of the elements $A_{qp}(f)$ of a basis vector $A_p(f)$ is proportional to the frequency response H_{qk} from the signal source k corresponding to a source signal p to a sensor q (that is, it is equal to the frequency response multiplied by a complex scalar). These complex scalars change with discrete time ~~(i.e. with phase)~~ whereas the relative value between the complex scalar corresponding to the source signal p and sensor q and the complex scalar corresponding to the source signal p and sensor Q does not change with changing discrete time (provided that the frequency f is the same). That is, if the frequency f is the same, the relative value between the argument of the complex scalar corresponding to the source signal p and sensor q and the argument of the complex scalar corresponding to the source signal p and sensor Q is constant.

Please replace paragraph [0101] at page 49, with the following rewritten paragraph [0101]:

[0101] [Formula 28]

$$R_f = \max_{\Pi} \sum_{|g-f|\le\delta} \sum_{k=1}^{N} \mathrm{cor}(v_{\Pi(k)}{}^{f}, v_{\Pi'(k)}{}^{g})$$

and stores it in the temporary memory (step S80). Here, Π' is a predetermined permutation for frequency g. The correlation $\mathrm{cor}(\Phi, \Psi)$ in the equation represents the correlation between two signals Φ and Ψ, defined as

$$\mathrm{cor}(\Phi, \Psi) = (<\Phi, \Psi> - <\Phi>\cdot<\Psi>)/(\sigma_\Phi \cdot \sigma_\Psi)$$

where $<\zeta>$ is the time average of ζ, σ_Φ is the standard deviation of Φ~~, and $v_{\Pi(k)}{}^f$ represents the envelope to be rearranged into envelope $v_k{}^f(\tau)$ by Π. That is, the envelope $v_{\Pi(k)}{}^f$ in the $\Pi(k)$-th column becomes the k-th envelope $v_k{}^f(\tau)$ in accordance with Π'~~.